CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this Transmittal Letter and the papers indicated as being transmitted therewith are being deposited with the United States Postal Service on this date shown below in an envelope as "Express Mail Post Office to Addressee" under the below indicated Mailing Label Number, addressed to: Box PCT, Commissioner for Patents, U.S. Patent and Trademark Office, Washington, D.C. 20231.

Mailing Label No.: EF232848323US

Deposit Date: January 17, 2002

Shari Saus

Name: Shari Saus

ATTORNEY'S DOCKET NO. TURKP0119US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(DO/EO/US)

In re national phase of:

Applicant(s):	Dieter Döhring et al.
International Application No.:	PCT/EP99/08510
International Filing Date:	November 6, 1999
Priority Date Claimed:	July 31, 1999
Title of Invention:	LAMINATE FLOOR COMPRISING TREAD SOUND-PROOFING

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING ENTRY INTO U.S. NATIONAL PHASE UNDER 35 U.S.C. 371

Box PCT
Commissioner for Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information under 35 U.S.C. 371:

1. This express request to immediately begin national examination procedures (35 U.S.C. 371(f)).

2. The U.S. National Fee (35 U.S.C. 371(c)(1)) and other fees (37 CFR 1.492) as indicated below.

3. A copy of the International application (35 U.S.C. 371(c)(2)):

   a. [X] is transmitted herewith (International Publication No. WO 01/09461 A1).

   b. [ ] is not required, as the application was filed with the United States Receiving Office.

   c. [ ] has been transmitted by the International Bureau. A copy of Form PCT/1B/308 is enclosed.

4. [X] An accurate translation of the International application into the English language (35 U.S.C. 371(c)(2)) is transmitted herewith.

5. Amendments to the claims of the International application under PCT Article 19 (35 U.S.C. 371(c)(3)):

   a. [ ] are transmitted herewith.

   b. [ ] have been transmitted by the International Bureau.

6. [ ] An accurate translation of the amendments to the claims under PCT Article 19 (38 U.S.C. 371(c)(3)) is transmitted herewith.

7. A copy of the international preliminary examination report (PCT/IPEA/409)

   a. [ ] is transmitted herewith.

   b. [ ] is not required as the United States Patent and Trademark Office was the IPEA.

8. Annex(es) to the international preliminary examination report

   a. [X] is/are transmitted herewith.

   b. [ ] is not required as the United States Patent and Trademark Office was the IPEA.

9. [X] An accurate translation of the annexes to the international preliminary examination report is transmitted herewith.

10. [ ] An oath or declaration of the inventor (35 U.S.C. 371(c)(4)) complying with 35 U.S.C. 115 is submitted herewith.

11. An International Search Report (PCT/ISA/210)

    a. [X] is transmitted herewith.

    b. [ ] has been transmitted by the International Bureau.

    c. [ ] is not required, as the application was searched by the United States International Searching Authority.

12. [ ] An Information Disclosure Statement under 37 CFR 1.97 and 1.98 is transmitted herewith, along with Form PTO-1449 and copies of citations listed.

13. [ ] An assignment document is transmitted herewith for recording, along with a separate cover sheet.

14. [X] A preliminary amendment is enclosed.

15. [ ] A verified statement claiming small entity status is enclosed.

16. [ ] Other:

Basic National Fee					Fee
IPEA - US				$710.00	
ISA - US				$740.00	
PTO not ISA or IPEA				$1,040.00	
Claims meet PCT Art. 33(1)-(4) - IPEA - US				$100.00	
Filing with EPO or JPO search report				$890.00	
Enter appropriate basic fee ➜					$890.00
Claims*	Number filed		Number extra	Rate	
Total claims	9	-20	0	$18.00	$0.00
Independent claims	1	-3	0	$84.00	$0.00
Multiple dependent claims (if applicable)				$280.00	
Total of above					$890.00
Small entity statement enclosed, 1 if Yes, 0 if No ➜				0	$0.00
Total national fee					$890.00
Fee for recording enclosed assignment				$40.00	
Total fees enclosed					$890.00

*After any attached preliminary amendment reducing the number of claims and/or deleting multiple dependencies.

[X] A check in the amount of $ 890.00 to cover the above fees is enclosed.

[ ] Please charge our Deposit Account No. 18-0988 in the amount of $_____. A duplicate copy of this sheet is enclosed.

WARNING: TO AVOID ABANDONMENT OF THE APPLICATION THE BASIC NATIONAL FEE MUST BE PAID WITHIN THE 20/30 MONTH TIME LIMIT.

16. The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper and during the entire pendency of this application to our Deposit Account No. 18-0988:

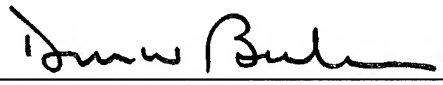
a. [X] 37 CFR 1.492(a)(1), (2), (3), (4) and (5) (basic national fee)

WARNING: BECAUSE FAILURE TO PAY THE NATIONAL FEE WITHIN 30 MONTHS WITHOUT EXTENSION (37 CFR S 1.495(B)(2)) RESULTS IN ABANDONMENT OF THE APPLICATION, IT WOULD BE BEST TO ALWAYS CHECK THE ABOVE BOX.

b. [ ] 37 CFR 1.492(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.492(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

Respectfully submitted,



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(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum
Internationales Büro

(43) Internationales Veröffentlichungsdatum
8. Februar 2001 (08.02.2001)

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6. November 1999 (06.11.1999)

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(30) Angaben zur Priorität:
199 36 127.4 31. Juli 1999 (31.07.1999) DE

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(81) Bestimmungsstaaten *(national)*: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Bestimmungsstaaten *(regional)*: ARIPO-Patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI-Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Veröffentlicht:
— *Mit internationalem Recherchenbericht.*

Zur Erklarung der Zweibuchstaben-Codes, und der anderen Abkürzungen wird auf die Erklarungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regularen Ausgabe der PCT-Gazette verwiesen.

(54) Title: LAMINATE FLOORING COMPRISING TREAD SOUND-PROOFING

(54) Bezeichnung: LAMINATFUSSBODEN MIT TRITTSCHALLDÄMPFUNG

(57) Abstract: The invention relates to a floor covering as is frequently used in houses and apartments. The floor covering has on its underside a layer of thermoplastic material. This layer is connected in a fixed manner to the floor covering. The floor covering consists of wood, wood derivatives and/or synthetic materials. In order to produced said floor covering, the thermoplastic material is heated and applied, or rolled onto the underside of the floor covering. The latter exhibits excellent sound-proofing properties.

(57) Zusammenfassung: Die Erfindung betrifft einen Fußbodenbelag, wie er in Häusern und Wohnungen vielfach verwendet wird. Der Fußbodenbelag weist auf seiner Unterseite eine Schicht aus thermoplastischem Material auf. Die Schicht ist fest mit dem Fußbodenbelag verbunden. Der Fußbodenbelag besteht aus Holz, Holzwerkstoffen und/oder Kunststoffen. Zur Herstellung wird das thermoplastische Material erwärmt und auf die Unterseite des Fußbodenbelages aufgestrichen oder -gewalzt. Der Fußbodenbelag weist sehr gute schalldämpfende Eigenschaften auf.

WO 01/09461 A1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re National Phase of:

Applicant:	Dieter Döhring et al.
PCT Application No.:	PCT/EP99/08510
PCT Filing Date:	November 6, 1999
Title:	LAMINATE FLOOR COMPRISING TREAD SOUND-PROOFING
Attorney Docket No.	TURKP0119US

PRELIMINARY AMENDMENT DELETING MULTIPLE DEPENDENCIES

Commissioner for Patents
United States Patent and Trademark Office
Washington, DC 20231

Sir:

Please amend the application in accordance with the following appended parts:

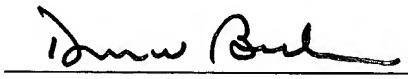
A. Clean Version of Replacement Paragraph/Section/Claim with Instructions for Entry; and

B. Version with Markings to Show Changes Made.

Remarks

By way of the foregoing, all of the claims have been amended to delete multiple dependencies. In the event there still remains a claim that depends from more than one claim, the Office is hereby authorized to amend such claim to depend from the first mentioned of the multiple claims from which it depends.

Respectfully submitted,



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A. Clean Version of Replacement Paragraph/Section/Claim with Instructions for Entry

Please amend the application as follows:

In the Claims:

Please substitute the following claims for the pending claims of corresponding number.

3. Floor covering according to claim 1, in which the thermoplastic material displays a marked physical relaxation behaviour at ambient temperature.

4. Floor covering according to claim 1, in which polyvinyl formals, polyvinyl butyrals, polyvinyl ethers, polyisobutenes, copolymers such as terpolymers of acrylonitrile, butadiene and styrene (ABS), copolymers of vinyl chloride and 2-ethylhexyl acrylate, copolymers of vinyl acetate and vinyl laurate or blends of these polymers, including with the addition of typical polymer plasticisers, are used as the thermoplastic material.

5. Floor covering according to claim 1, in which polymers or copolymers with fillers, preferably light organic substances, are provided as the thermoplastic material.

6. Floor covering according to claim 1, in which a thermoplastic material with adhesive properties is used.

7. Floor covering according to claim 1, in which the panels are thicker than the layer consisting of thermoplastic material.

8. Floor covering according to claim 1, which can be produced by spreading or rolling the thermoplastic material in the free-flowing state on to the bottom of the floor panels.

9. Process for the production of a floor covering according to claim 1, in which thermoplastic material is heated and applied in the free-flowing state on to the bottom of floor panels by spreading or roller application without the inclusion of air.

B. Version with Markings to Show Changes Made

Please amend the application as follows:

In the Claims:

3. (Amended) Floor covering according to claim 1[or 2], in which the thermoplastic material displays a marked physical relaxation behaviour at ambient temperature.

4. (Amended) Floor covering according to claim 1,[2 or 3,] in which polyvinyl formals, polyvinyl butyrals, polyvinyl ethers, polyisobutenes, copolymers such as terpolymers of acrylonitrile, butadiene and styrene (ABS), copolymers of vinyl chloride and 2-ethylhexyl acrylate, copolymers of vinyl acetate and vinyl laurate or blends of these polymers, including with the addition of typical polymer plasticisers, are used as the thermoplastic material.

5. (Amended) Floor covering according to [one of the preceeding claims] claim 1, in which polymers or copolymers with fillers, preferably light organic substances, are provided as the thermoplastic material.

6. (Amended) Floor covering according to [one of the preceeding claims] claim 1, in which a thermoplastic material with adhesive properties is used.

7. (Amended) Floor covering according to [one of the preceeding claims] claim 1, in which the panels are thicker than the layer consisting of thermoplastic material.

8. (Amended) Floor covering according to [one of the preceeding claims] claim 1, which can be produced by spreading or rolling the thermoplastic material in the free-flowing state on to the bottom of the floor panels.

9. (Amended) Process for the production of a floor covering according to [one of the preceeding claims] claim 1, in which thermoplastic material is heated and applied in the free-flowing state on to the bottom of floor panels by spreading or roller application without the inclusion of air.

Claims (Amended claims)

1. Floor covering with rigid laminate or parquet panels consisting of wood or timber-based materials with a layer which is firmly bonded to the bottom of the panels,

characterised in that

the layer consists of thermoplastic material, and in which the thermoplastic material is applied to the bottom of the panels without the inclusion of air.

2. to 6. as originally filed.

7. Floor covering according to one of the preceeding claims, in which the panels are thicker than the layer consisting of thermoplastic material.

8. Floor covering according to one of the preceeding claims, which can be produced by spreading or rolling the thermoplastic material in the free-flowing state on to the bottom of the floor panels.

9. Process for the production of a floor covering according to one of the preceeding claims, in which thermoplastic material is heated and applied in the free-flowing state on to the bottom of floor panels by spreading or roller application without the inclusion of air.

Laminate floor with footstep sound absorption

The invention relates to a floor covering, as widely used in houses and apartments, and to a process for the production of the floor covering.

A rigid floor covering can consist of wood, timber-based materials and/or plastics. Among other things, laminate floors are known which are composed of individual panels and are laid as a floating floor. A single panel consists e.g. of an HDF support sheet and a laminate layer applied thereon, which is responsible for the appearance of the floor, among other things.

If people move about in a room fitted with rigid floor panels, the noise development is clearly greater than in rooms fitted with carpets or elastic floor coverings such as PVC. The noise development is based on reflections of shock waves introduced into the floor when it is walked on. The amplitude spectrum of the shock or sound waves depends on the room-floor, floor-substrate boundaries and on the attenuation in the different layers. The noise development is particularly high if a layer of air remains between two layers, i.e. for example between the laminate floor and the screed below it.

In order to reduce the noise development from walking, various mat-like materials, such as closed-cell polyethylene foam, cork, polymer-bonded mats of recycled rubber and cork, corrugated card or soft wood-fibre fabrics are used as an underlay under a rigid floor covering above the screed. The sound-absorbing effect that can be achieved by this method is unsatisfactory, however.

Attempts have therefore already been made to stick the above mat-like materials directly to the back of a rigid floor covering, i.e. on the base of a floor panel, for example. Disadvantageously, this involves high technical complexity. The costs are consequently high. Overall, the sound reduction is unsatisfactory in relation to the technical complexity.

From the document DE 196 20 987 C1, for example, an insulating film is known, which is equipped with an adhesive strip. It is intended to stick the insulating film on to the bottom of a rigid floor covering so as to reduce noise development when the floor is walked on.

From the document DE 43 29 766 A1, it is known to provide a polymer material for the footstep sound insulation of a floor.

According to the document DE 38 35 638 A1 an insulating material made of expandable polystyrene is used as an insulating layer in rigid floor coverings.

Compared with the prior art, the object of the invention is to create a floor covering having good sound-absorbing properties, without having to deal with unreasonably high technical complexity for the purpose. A further object of the invention is to create a process by which the floor covering according to the invention can be produced by simple means.

The object of the invention is achieved by a floor covering having the features of the first claim. A process for the production of the floor covering has the features

of the first co-ordinated claim. Advantageous embodiments can be taken from the subordinate claims.

The floor covering according to claim 1 has on the bottom a layer of thermoplastic material. The layer is firmly bonded to the floor covering. The floor covering consists of wood, timber-based materials and/or plastics.

Thermoplastic material is one that softens and becomes free-flowing when a material-dependent temperature is exceeded. In this state, the material is deformable and can be applied to the bottom of the floor covering by spreading or roller application and thus firmly bonded to the floor covering within the meaning of the invention.

If the temperature falls below that mentioned above, the material solidifies and the plastic / elastic properties become evident.

The above properties of the thermoplastic material allow it to be firmly bonded to the bottom of the rigid floor covering by spreading or roller application at elevated temperatures. As a result of the firm bond, the sound waves are transferred directly into the sound-absorbing layer without reflection at the boundary layer. Thus, a significant cause of a lack of sound absorption, which is a problem in floors according to the prior art mentioned at the beginning, is removed, resulting in substantially improved sound absorption.

Since the material only has to be heated and spread or rolled on, the production is simple. It is not therefore necessary to deal with high technical complexity.

The invention can, in principle, be applied to any floor covering. However, the problem according to the invention arises in particular with rigid floor coverings, such as laminate or parquet. A rigid floor covering generally consists of wood, timber-based materials and/or plastics.

A thickness of the sound-absorbing layer of at least 0.1 mm has proved useful. With a 5 mm thickness of the sound-absorbing layer consisting of thermoplastic material the amount of material required is in an economic ratio to the effect that can be achieved. In tests, a thickness of 0.7 mm has proved advantageous.

The most suitable layer thickness naturally depends on the material. It therefore varies in each individual case.

Polymers or copolymers in particular are provided as the thermoplastic material. Those polymers or copolymers displaying a marked physical relaxation behaviour in the ambient temperature range are to be preferred. Examples of thermoplastic polymers with marked physical relaxation behaviour in the ambient temperature range are polyvinyl propionate or polyvinyl acetate. On the other hand polycarbonate, for example, with its high glass transition temperature, is a completely unsuitable material. In terms of metrology, suitable materials display a distinct maximum e.g. when the torsion modulus is presented as a function of the temperature in the loss modulus tan δ in the ambient temperature range or immediately adjacent temperature ranges. The physical bases, including examples of curves, are contained in polymer physics text books, such as e.g.: Chemie, Physik und Technologie der

Kunststoffe vol. 6, Kunststoffe 1 - Struktur und physikalisches Verhalten der Kunststoffe -, chapter 4; K. A. Wolf, Springer-Verlag 1962.

If the material displays a marked physical relaxation behaviour in the ambient temperature range, particularly good absorption is achieved since kinetic energy is converted to heat particularly well.

Examples of materials displaying particularly good relaxation behaviour at ambient temperature are:

Polyvinyl formals, polyvinyl butyrals, polyvinyl ethers, polyisobutenes or copolymers, such as e.g. terpolymers of acrylonitrile, butadiene and styrene (ABS), copolymers of vinyl chloride and 2-ethylhexyl acrylate, copolymers of vinyl acetate and vinyl laurate or polymer blends of these polymers, including with the addition of typical polymer plasticisers.

A further improved sound-absorbing effect is achieved by adding fillers, especially light organic fillers with a density of less than 1 g/cm^3, such as e.g. wood flour, to polymers or copolymers. These fillers can be added in quantities of up to 90 wt.%. An addition of at least 10 wt.% is advantageous. In particular, 30 wt.% should be added.

In another advantageous embodiment of the invention, the thermoplastic material is selected such that it exhibits adhesive properties. Adhesion is a technical term typical of polymers. Thermoplastic rubbers are an example of a

material exhibiting adhesive properties within the meaning of the invention.

If the material is selected such that it exhibits adhesive properties, it sticks to the floor substrate. The adhesion is preferably designed in such a way that the floor covering can be removed again without complex technical resources. An intermediate layer (air layer) between the floor substrate and the thermoplastic layer is minimised in this way. Sound is therefore absorbed in a further improved manner.

The floor covering according to the claims is produced in that thermoplastic material is heated in such a way that it becomes free-flowing. The heated material is applied to the bottom of elements of the floor covering or on to a support sheet for such a floor covering by spreading or roller application. The floor elements or the support sheet are then cooled together with the applied thermoplastic material.

The invention is explained in more detail by means of the following embodiment. A floor panel in a 1285 x 185 x 8 mm format is provided as the rigid floor covering. This consists of a 0.8 mm thick high pressure laminate layer, a 6.4 mm thick HDF support sheet with a density of 870 kg/m^3 and a 0.8 mm thick high pressure laminate balancing layer. A thermoplastic layer consisting of a copolymer is applied to the floor panel by means of spreading equipment on the back of the panel at a temperature of 150°C. The copolymer consists of vinyl acetate with an acrylate proportion of 12 wt.%. The thickness of the applied layer is 0.7 mm.

In an acoustic test chamber, the sound level was measured when a laid area of 20 m^2 of the floor produced according to the invention was walked on, compared with an untreated area. A closed-cell foam mat consisting of polyethylene in a thickness of 3 mm was laid under the untreated floor. The coated floor was laid without any additional insulating materials. In the result of the sound measurements, a sound level of 78 dB was detectable for the untreated floor in the measuring chamber and for the floor fitted with sound absorption according to the invention a sound level of 67 dB with the same mechanical stimulus. Since at the same time a frequency shift from higher to lower tones took place, the treated floor was perceived as substantially quieter.

Claims

1. Floor covering with a layer which is firmly bonded to the bottom of the floor covering and which consists of thermoplastic material.

2. Floor covering according to claim 1, in which the layer consisting of thermoplastic material is 0.1 to 5 mm thick.

3. Floor covering according to claim 1 or 2, in which the thermoplastic material displays a marked physical relaxation behaviour at ambient temperature.

4. Floor covering according to claim 1, 2 or 3, in which polyvinyl formals, polyvinyl butyrals, polyvinyl ethers, polyisobutenes, copolymers such as terpolymers of acrylonitrile, butadiene and styrene (ABS), copolymers of vinyl chloride and 2-ethylhexyl acrylate, copolymers of vinyl acetate and vinyl laurate or blends of these polymers, including with the addition of typical polymer plasticisers, are used as the thermoplastic material.

5. Floor covering according to one of the preceeding claims, in which polymers or copolymers with fillers, preferably light organic substances, are provided as the thermoplastic material.

6. Floor covering according to one of the preceeding claims, in which a thermoplastic material with adhesive properties is used.

7. Floor covering according to one of the preceeding claims, in which laminate is provided as the floor covering.

8. Floor covering according to one of the preceeding claims, in which the floor covering consists of wood, timber-based materials and/or plastics.

9. Process for the production of a floor covering according to one of the preceeding claims, in which thermoplastic material is heated and applied to the bottom of a floor covering by spreading or roller application.

(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum
Internationales Büro

(43) Internationales Veröffentlichungsdatum
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PCT

(10) Internationale Veröffentlichungsnummer
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(51) Internationale Patentklassifikation[7]: E04F 15/20, B32B 21/00

(21) Internationales Aktenzeichen: PCT/EP99/08510

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(30) Angaben zur Priorität:
199 36 127.4 31. Juli 1999 (31.07.1999) DE

(71) Anmelder *(für alle Bestimmungsstaaten mit Ausnahme von US)*: **KRONOSPAN TECHNICAL COMPANY LTD.** [CY/CY]; Iasonos Street, 1082 Nikosia (CY).

(72) Erfinder; und

(75) Erfinder/Anmelder *(nur für US)*: **DÖHRING, Dieter** [DE/DE]; Mühlbacher Strasse 1, D-01561 Lampertswalde (DE). **DEVANTIER, Bernd** [DE/DE]; Ernst-Thälmann-Strasse 18, D-01462 Mobschatz (DE). **EMMLER, Rico** [DE/DE]; Striesener Strasse 38 d, D-01307 Dresden (DE).

(74) Anwalt: **GILLE HRABAL STRUCK NEIDLEIN PROP ROOS**; Brucknerstrasse 20, 40593 Düsseldorf (DE).

(81) Bestimmungsstaaten *(national)*: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Bestimmungsstaaten *(regional)*: ARIPO-Patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI-Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Veröffentlicht:
— *Mit internationalem Recherchenbericht.*

Zur Erklärung der Zweibuchstaben-Codes, und der anderen Abkürzungen wird auf die Erklärungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regularen Ausgabe der PCT-Gazette verwiesen.

(54) Title: LAMINATE FLOORING COMPRISING TREAD SOUND-PROOFING

(54) Bezeichnung: LAMINATFUSSBODEN MIT TRITTSCHALLDÄMPFUNG

(57) Abstract: The invention relates to a floor covering as is frequently used in houses and apartments. The floor covering has on its underside a layer of thermoplastic material. This layer is connected in a fixed manner to the floor covering. The floor covering consists of wood, wood derivatives and/or synthetic materials. In order to produced said floor covering, the thermoplastic material is heated and applied, or rolled onto the underside of the floor covering. The latter exhibits excellent sound-proofing properties.

(57) Zusammenfassung: Die Erfindung betrifft einen Fußbodenbelag, wie er in Häusern und Wohnungen vielfach verwendet wird. Der Fußbodenbelag weist auf seiner Unterseite eine Schicht aus thermoplastischem Material auf. Die Schicht ist fest mit dem Fußbodenbelag verbunden. Der Fußbodenbelag besteht aus Holz, Holzwerkstoffen und/oder Kunststoffen. Zur Herstellung wird das thermoplastische Material erwärmt und auf die Unterseite des Fußbodenbelages aufgestrichen oder -gewalzt. Der Fußbodenbelag weist sehr gute schalldämpfende Eigenschaften auf.

WO 01/09461 A1

RENNER, OTTO, BOISSELLE & SKLAR

Attorney Docket No. TURKP0119US **PATENT (OUS)**

COMBINED DECLARATION AND POWER OF ATTORNEY
(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT)

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Title: LAMINATE FLOORING COMPRISING TREAD SOUND-PROOFING

the specification of which

[ ] is attached hereto, or

[X] was filed as United States Application or PCT International Application *(give Express Mail label number and deposit date if Application number not yet known)*:

Application No.: PCT/EP99/08510
(Express Mail Label No.)
Filing Date: November 6, 1999
(Deposit Date)
Amended on *(if applicable)*:

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56(a).

PRIORITY CLAIM

I hereby claim priority benefits under Title 35, United States Code, §119 of (i) any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed; and (ii) any United States provisional application(s) that is/are listed below.

[ ] no such applications have been filed.
[X] such applications have been filed as follows.

EARLIEST FOREIGN/PROVISIONAL APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED	
			Yes	No
DE	199 36 127.4	31 July 1999	X	

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

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RENNER, OTTO, BOISSELLE & SKLAR

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

(3)

Armand P. Boisselle, Reg. No. 22,381; Warren A. Sklar, Reg. No. 26,373; Don W. Bulson, Reg. No. 28,192

The undersigned to this declaration and power of attorney hereby authorizes the U.S. attorney(s) named herein to accept and follow instructions from

Authorized representative: Gille Hrabal Struck Neidlein Prop Roos
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as to any actions to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney(s) and the undersigned. In the event of a change in the person(s) from whom instructions may be taken, the U.S. attorney(s) will be so notified by the undersigned.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1-00

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CHECK FOR ANY OF THE FOLLOWING ADDED PAGE(S) WHICH FORM A PART OF THIS DECLARATION

[X] Signature for additional joint inventors.
[ ] Added page to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (CIP) application.
[ ] This declaration ends with this page.

ADDED PAGE TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR SIGNATURE BY THIRD AND SUBSEQUENT INVENTORS

3-00

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